Enhancing student learning in large classes

- Arrive early to the first and other classes so you can greet students.
- Use a background knowledge probe to get a picture of students' prior knowledge and understanding – this is a simple questionnaire that asks students what they know about key concepts in the course. You can use a background knowledge probe at the beginning of a new course or even at the beginning of an individual lecture, and it can help you pitch your class for maximum student engagement.
- Use a misconception and preconception check to get a picture of students' prior knowledge and understanding – this tool focuses directly on ideas or preconceptions that might hinder students' learning. If you identify unhelpful preconceptions, you need to help students explore and overcome them rather than simply telling students that these preconceptions are wrong. A misconception and preconception check can help you pitch your class for maximum student engagement.
- When speaking to the whole class, try to maintain eye contact with as many people as possible.
- Move around the room as much as possible – if available, use a cord or mobile microphone.
- Articulate clear aims and learning outcomes at the beginning of each large-group class. Clear statements of aims and outcomes will help you to identify or devise learning activities that will most benefit students, and they will help students understand what they need to do to learn in that class.
- Make a slide or overhead of your aims, outcomes, and plan for the class and display it throughout the class, if possible. This helps students know where you and they are up to.
- Break up a lecture with activities that students do in pairs or small groups.
- Finish each lecture with a take-home message.
- Give students online access to basic lecture notes or points, so that they can focus on what you are saying in class.

Ideas for active, student-centred lectures

It is difficult for students to carry out a passive task, such as listening to a lecture, for a long period without losing concentration. Students lose attention in lectures quite quickly, usually after about 15 minutes. One way to sustain students' attention and enhance their learning is to break a lecture up into manageable components. You can intersperse new material with active and student-centred learning tasks based on that material. It is important to explain the purpose of such activities and let students know when the formal lecture will resume.

The following list offers suggestions for breaks and activities to make lectures more active and student-centred.

- Rest: say to students, Okay. Take a break for a minute. In cramped conditions and after a long time, the opportunity for students to move and stretch can be useful.
- Read another student's notes: Swap notes with the person next to you and see what they have written about. You might spot things you could add to your own notes when you get them back.
- Ask your questions: Take the questions you have written and ask them of the people all around you until you have satisfactory answers.
- Tackle a problem: Tackle this problem I am displaying on the overhead projector. Do it on your own unless you are stuck.
- Discuss a question: In pairs, discuss the following question.
- Read notes: Take two minutes to look through your notes. Check them, fill in the gaps, and make sure you understand them.
- Write down one or two questions: I'd like you to write down one or two questions you have at this point in the lecture. Get the question exactly right so that it addresses what you are really interested in or confused about.
- Read some material: Read the case/text/poem/account on the handout.
- Discuss a question: In pairs, discuss the following question.
• Apply this concept: In threes, analyse this case/problem/text using the concepts I have just outlined.

• Take a short test: Here are three short questions/problems. Do them on your own. You have five minutes. I'll indicate when it's time to swap your answers with your neighbour. I'll explain the answers and you are to correct and comment on the answers in front of you and pass them back.

• Silent reflection: Take three minutes to think about what we have dealt with so far. Stay silent so as not to interfere with others' reflections.

• Ask students to complete information given in handouts. Present lecture material (handouts or PowerPoint slides) as incomplete information so that students are required to fill in the gaps as the lecture progresses.

• Use a provocative question to capture students' interest. Begin the course or lecture by introducing a problem and eliciting several answers from students. Use this discussion in the lecture to further explore ideas and build on the suggestions made. Provocative questions or problems can also be used to end a lecture.

• Minute paper: At the end of a large-group class, ask students to write down first what they understand as the class's main point and, second, what they did not understand about the class. They can leave their (anonymous) responses in a box as they leave the room, and you can address these responses at the beginning of the next class.

• Create an atmosphere that invites questioning and student participation. For example, invite students to challenge ideas presented in a lecture, and encourage other students to answer questions raised.

• Use visual material to engage students. If using visual material (slides, maps, source documents, and so on), ask students for their interpretation before providing them with your perspective.

Ideas for assessing large groups
Assessment in large classes presents a particular challenge for teachers. To meet this challenge, you could try the following ideas.

• Develop clear explanations of assessment tasks and clear assessment criteria and then communicate these to students – this might help to limit the number of student inquiries.

• Provide students with a list of frequently asked questions and answers about assessment in your course – you could use an online learning system (e.g. vista) to do this.

• Provide students with models or examples of tasks that meet various criteria and that have received grades across the marking spectrum.

• Provide students with a list of the most common difficulties encountered or errors made by students in a particular assessment task.

• Use online quizzes with automated feedback.

• Devise tasks that use self-assessment and/or peer-assessment – this will reduce your workload.

• Remember that you do not have to be the only source of feedback for students on their assessment tasks – self-review and peer-review can also be effective.

• Use standardised marking and feedback sheets that list the assessment criteria – this can speed up the marking process and create greater reliability across different markers.

Online resources
Australian Universities Teaching Committee (AUTC), Teaching Large Classes.
Flinders University Teaching for Learning, Lecturing Guidelines.
Felder, R. Beating the Numbers Game: Effective Teaching in Large Classes, Department of Chemical Engineering, North Carolina State University.
Race, P. Notes on Lecturing, DeLIBerations.
Davis, B. Preparing to Teach the Large Lecture Course, University of California, Berkeley.
University of Melbourne Centre for the Study of Higher Education, Assessing Large Classes.